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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,885	07/23/2003	Minoru Miyatake	030837	6761

38834 7590 02/15/2005

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EXAMINER	
FINEMAN, LEE A	

ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/624,885	MIYATAKE, MINORU	
	Examiner	Art Unit	
	Lee Fineman	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/6/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 2, 5 and 7 are objected to because of the following informalities

The claims are objected to because they include items enclosed within parentheses, e.g., "(absolute value)" and "(normal direction)" that are not reference characters corresponding to elements recited in the detailed description of the drawings. Using parentheses within the claims for items other than drawing reference characters should be avoided so as to avoid confusion. The examiner suggests --an absolute value of-- and --which is the normal direction--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6, 8-13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyatake et al., U.S. Patent Publication No. 2001/0004299 A1 (henceforth Miyatake '4299) in view of Ohmuro et al., U.S. Patent No. 6,281,956 B1.

Regarding claims 1, 2 and 6, Miyatake '4299 disclose in fig. 3 an anisotropic light scattering element having an anisotropy in light scattering intensity, comprising an anisotropic light scattering layer (1) having an anisotropy in light scattering intensity depending on a polarization direction of incident linearly polarized light (see page 4, section [0037]), and a

birefringent layer (3 and pages 5-6, sections [0050] and [0052], e.g., polarizer with protective film). Miyatake '4299 does not explicitly state that the birefringent layer (3) has a phase difference of less than 1/10 wavelength with respect to incident light in a normal direction, and a phase difference with respect to incident light in a direction inclined from the normal that is different from the phase difference with respect to incident light in a normal direction; wherein, in the birefringent layer, the phase difference with respect to the incident light in a normal direction exhibits a minimum and a phase difference value with respect to the light inclined from the normal increases following an absolute value of an increase of the inclination of the light; and wherein the birefringent layer develops a phase difference of at least 1/10 wavelength with respect to incident light in a direction inclined by 30 degrees from the normal direction. Ohmuro et al. teach that polarizers including a protective birefringent film layer with a phase difference of less than 1/10 wavelength with respect to incident light in a normal direction (column 17, lines 46-52 and column 18, lines 11-19), and a phase difference with respect to incident light in a direction inclined from the normal that is different from the phase difference with respect to incident light in a normal direction (inherently the physical thickness will be different as the light angle changes, therefore the phase difference will be different); wherein, in the birefringent layer, the phase difference with respect to the incident light in a normal direction exhibits a minimum and a phase difference value with respect to the light inclined from the normal increases following an absolute value of an increase of the inclination of the light (inherently the physical thickness will increase as the light angle changes from normal, therefore the phase difference will increase); and wherein the birefringent layer develops a phase difference of at least 1/10 wavelength with respect to incident light in a direction inclined by 30 degrees from the

normal direction (again, inherently the physical thickness will increase as the light angle changes from normal, therefore the phase difference will increase) are very well known in the art. It would have been obvious to one of ordinary skill in the art to make the optical part of Miyatake '4299 include the protective birefringent film layer with a phase difference of less than 1/10 wavelength as suggested by Ohmuro et al. as it is a typical, commonly available, easy to obtain protective film.

Regarding claim 3, Miyatake '4299 further disclose wherein, in the anisotropic light scattering layer, a maximum transmission direction in which the linear polarized light exhibits a maximum transmittance and a maximum scattering direction in which a light scattering intensity of the linearly polarized light is maximized are orthogonal to each other (page 1, section [0007]).

Regarding claim 4, Miyatake '4299 further disclose wherein the anisotropic light scattering layer comprises a first translucent region and a second region distinguished from the first region by the birefringence, and the second region is dispersed in the first region (page 1, sections [0017]-[0018]).

Regarding claim 5, Miyatake '4299 further disclose wherein, in the anisotropic light scattering layer, an absolute value of a difference between a refractive index of the first region and a refractive index of the second region in the maximum transmission direction in which the linearly polarized light exhibits the maximum transmittance is less than 0.03, and an absolute value of a difference between a refractive index of the first region and a refractive index of the second region in the maximum scattering direction in which the linearly polarized light has maximum light scattering intensity is from 0.03 to 0.50 (page 1, section [0017]).

Regarding claims 8, 10-11, 13 and 14, Miyatake '4299 further disclose a polarizing plate (fig. 3) comprising the anisotropic light scattering element (1 and the protective birefringent film layer on polarizer 3) and a polarizer (3), wherein the polarizer is laminated on the anisotropic light scattering element so as to face the birefringent layer (fig. 3) and the anisotropic light scattering element being disposed on a visible side of a liquid crystal cell (pages 6-7, section [0059]), which is an image display device.

Regarding claim 9, Miyatake '4299 further disclose wherein the anisotropic light scattering layer and the birefringent layer are laminated via an adhesive (2) or a pressure-sensitive adhesive (page 5, section [0044]).

Regarding claim 12, Miyatake '4299 further disclose wherein a maximum scattering direction in which light scattering intensity in the anisotropic light scattering layer of the anisotropic light scattering element is maximized and a transmission axis direction of the polarizer are substantially parallel to each other (page 6, section [0053]).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyatake '4299 in view of Ohmuro et al., as applied to claim 1 above, and further in view of Aizawa et al., U.S. Patent No. 5,179,456.

Miyatake '4299 in view of Ohmuro et al., as applied to claim 1 above disclose the claimed invention except for wherein the birefringent layer satisfies any of the following formulas: $nx \approx ny > nz$, $nx \approx ny < nz$, where nx, ny and nz denote respectively refractive indices in the directions of X-axis, Y-axis, and Z-axis in the birefringent layer; the X-axis direction denotes a direction in which the refractive index is maximized in the plane of the birefringent layer, the Y-

axis direction is perpendicular to the X-axis direction in the plane of the birefringent layer, and the Z-axis direction is a thickness direction, which is the normal direction, of the birefringent layer, and perpendicular to the X-axis and Y-axis. Different optical anisotropy conditions are well known in the art to provide specific light compensation/control. For example, Aizawa demonstrates some different optical anisotropy conditions in figs. 2B-2B. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a specific optical anisotropy conditions including the claim conditions in the system of Miyatake '4299 in view of Ohmuro et al. to provide specific light compensation/control.

5. Claims 1, 2, 6, 10, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyatake et al., U.S. Patent Publication No. 2002/0008807 A1 (henceforth Miyatake '8807) in view of Ohmuro et al., U.S. Patent No. 6,281,956 B1.

Miyatake '8807 disclose in fig. 1 an organic EL display (2), which is an image display, comprising an anisotropic light scattering element having an anisotropy in light scattering intensity, comprising an anisotropic light scattering layer (1) having an anisotropy in light scattering intensity depending on a polarization direction of incident linearly polarized light (see page 1, section [0016]), and a birefringent layer (3 and page 6, sections [0053] and [0055], e.g., polarizer with protective film). Miyatake '8807 does not explicitly state that the birefringent layer (3) has a phase difference of less than 1/10 wavelength with respect to incident light in a normal direction, and a phase difference with respect to incident light in a direction inclined from the normal that is different from the phase difference with respect to incident light in a normal direction; wherein, in the birefringent layer, the phase difference with respect to the incident light

in a normal direction exhibits a minimum and a phase difference value with respect to the light inclined from the normal increases following an absolute value of an increase of the inclination of the light; and wherein the birefringent layer develops a phase difference of at least 1/10 wavelength with respect to incident light in a direction inclined by 30 degrees from the normal direction. Ohmuro et al. teach that polarizers including a protective birefringent film layer with a phase difference of less than 1/10 wavelength with respect to incident light in a normal direction (column 17, lines 46-52 and column 18, lines 11-19), and a phase difference with respect to incident light in a direction inclined from the normal that is different from the phase difference with respect to incident light in a normal direction (inherently the physical thickness will be different as the light angle changes, therefore the phase difference will be different); wherein, in the birefringent layer, the phase difference with respect to the incident light in a normal direction exhibits a minimum and a phase difference value with respect to the light inclined from the normal increases following an absolute value of an increase of the inclination of the light (inherently the physical thickness will increase as the light angle changes from normal, therefore the phase difference will increase); and wherein the birefringent layer develops a phase difference of at least 1/10 wavelength with respect to incident light in a direction inclined by 30 degrees from the normal direction (again, inherently the physical thickness will increase as the light angle changes from normal, therefore the phase difference will increase) are very well known in the art. It would have been obvious to one of ordinary skill in the art to make the optical part of Miyatake '8807 include the protective birefringent film layer with a phase difference of less than 1/10 wavelength as suggested by Ohmuro et al. as it is a typical, commonly available, easy to obtain protective film.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LAF
February 10, 2005

MARK A. ROBINSON
PRIMARY EXAMINER